Remarks

The Examiner's reconsideration of the application is urged in view of the amendments above and comments which follow:

Turning first to the objection to the specification, the English spelling noted has been replaced by an American spelling. The issue concerning the same spelling in the claims is moot because of the claim cancellations.

The Examiner has rejected claims 1-18 under 35 U.S.C. §103 as being unpatentable over Hustig U.S. Patent No. 4,672,605 in view of Rhoads U.S. Patent No. 5,768,426. Reconsideration is now urged, in view of the recasting of the claims as set forth above.

In essence, new claim 1 combines the features of former claims 1 to 4 with further amendments to more clearly relate the different claim features together.

New decoder claim 19 essentially provides a corresponding decoder claim based on figure 5 to replace the existing decoder claim. New claim 20 corresponds to withdrawn claim 12.

New claim 21 is a claim related to the decoder but specifically limited to the specific audio application envisioned by the applicants and new claim 22 essentially is a system claim to assist them including the encoder of claim 1 and the decoder of claim 19.

Claim 1 now specifically recites the way in which the initial bit of the serial data input is encrypted using an encryption key comprising the initial plurality of encoding bits, and subsequent bits are encrypted using an updated key. Note that "the initial plurality of encoding bits refers back to the bits from the transformation unit and permutation unit features which are not present in either Hustig et al or Rhoads et al. Neither of these references describes using a plurality of bits output by a permutation unit in the encoding scheme for the initial bit encoding subsequent bits using a key not from these bits as will now be explained.

In view of the amendments, the rejections of the examiner are largely moot, but some comment regarding the features of claim 3 and 4 is relevant.

In particular, regarding the "transformation unit including the means for storing a predetermined number of previous values of the random bit", memory 214 does indeed store a predetermined number of values of a random bit some of which bits are used for encoding, but these bits are singly applied at the adder or subtractor 212 (see column 80 lines 9 to 17). In contrast, amended claim 1 recites that the first serial data input bit is encoded using a plurality of bits from the permutation unit and subsequent bits are encrypted using an updated key derived from previous values from key and of the input bit.

Thus, in the invention, a first bit uses a plurality of random bits taken from the permutation unit, whereas subsequent bits are encoded without having any input from the permutation unit at all.

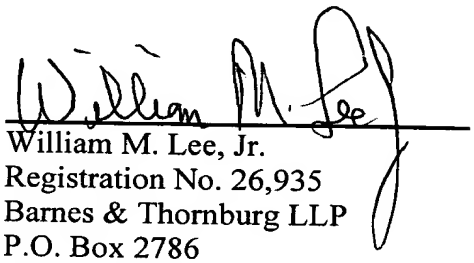
This is neither taught nor suggested in the cited references. Further, the Applicants submit that no would motivation is present to combine Hustig et al or Rhoads et al. Even if the skilled person did combine the teaching of the references, the skilled person would not arrive at claim 1 since the feature that the first bit is encoded with a plurality of bits from the permutation unit and subsequent bits are encoded with an updated key would still not be present. Accordingly, it is submitted that none of the references teaches or suggests the heavily amended claim 1. Similarly, the decoder and system claims are novel and non-obvious for the same reasons.

In view of the foregoing, the Examiner's further and favorable reconsideration of the application is urged.

As this Response is being submitted during the fourth month following the Examiner's Office Action, an appropriate Petition for Extension of Time is also submitted herewith.

March 23, 2005

Respectfully submitted,



William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 (fax)